

ED 346 431

CS 010 954

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TITLE Addressing Individual Learning Styles in a Whole Language Classroom.
PUB DATE 92
NOTE 34p.; Best available copy.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Cognitive Style; Grade 2; Grade 3; Primary Education; *Reading Instruction; Reading Research; *Whole Language Approach
IDENTIFIERS Reading Style Inventory (Carbo); Virginia (Albemarle County)

ABSTRACT

A study was conducted to determine ways in which student learning styles could be accommodated in a whole language classroom. The Reading Style Inventory (RSI) developed by Marie Carbo which follows the Dunn model of learning styles was chosen for the study. The RSI was administered to 10 students in 2 second/third combination grade whole language classrooms in Albemarle County, Virginia. The inventories were computer scored and studied by the researcher. Results of the individual profiles showed that a majority of students responded well to global approaches to teaching reading. Several suggestions were made for ways to incorporate whole language strategies to match reading styles of students. It is possible for whole language teachers to match whole language instructional methods to individual reading styles without compromising the philosophies behind either approach. (Nineteen references and four appendixes, containing a sample individual profile, definitions of reading method terms, a group chart of recommended reading methods, and a letter to parents, are attached) (Author/SR)

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Learning Styles and Whole Language 1

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ADDRESSING INDIVIDUAL LEARNING STYLES IN A WHOLE LANGUAGE CLASSROOM

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Running Head: Learning Styles and Whole Language

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ABSTRACT

A study was conducted to determine ways in which student learning styles could be accommodated for in a whole language classroom. The Reading Style Inventory, (RSI), developed by Marie Carbo which follows the Dunn model of learning styles was chosen for the study. The RSI was administered to ten students in two second/third combination grade whole language classrooms. The inventories were computer scored and studied by the researcher. Several suggestions were made for ways to incorporate whole language strategies to match reading styles of the students. In conclusion, it is possible for whole language teachers to match whole language instructional methods to individual reading styles without compromising the philosophies behind either approach.

REVIEW OF THE LITERATURE

Learning Styles

One widely accepted definition of learning styles, developed by the National Association for Secondary School Principals (N.A.S.S.P.) Learning Styles Task Force follows: "Learning Styles are the characteristic cognitive, affective, and psychological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment" (Debello 1990, p. 203). Extensive research shows that an individual's learning style involves many aspects and dimensions. This is corroborated in the following statement:

Doctoral and post-doctoral research with learning style-responsive strategies repeatedly has documented that when learning new and difficult information individuals differ significantly in how they learn; the environment in which they can learn; their emotional predispositions for concentrating, internalizing and retaining; the perceptual strengths through which they remember information to which they have been exposed, the people with whom they can learn, their physiological needs while learning; and the processing style each favors (Debello 1990, p. v).

Theorists maintain different views concerning how instructional techniques should relate to students' individual learning styles. One instrument that is supported by extensive research is the Learning Styles Inventory (LSI) developed by Kenneth and Rita Dunn. The Dunns' model is a diagnostic/prescriptive approach that identifies learner's styles through a self-report instrument that matches instructional techniques to the individual learning styles (Debello 1990). Since 1979, the LSI has evidenced extremely high predictive validity and has been identified as being practitioner-oriented and is the most widely used assessment in elementary secondary schools (Debello 1990). The Reading Style Inventory (RSI), developed by Dr. Marie Carbo relies on the theoretical framework of the Dunn model, and is an independent, but correlated instrument, with the Dunn's LSI. Marie Carbo's theories about learning styles directly follow from those of the Dunns, but they specifically relate to the often complex task of teaching students to read. As this study will focus on reading, the RSI will be explained in greater depth.

The model of learning styles followed by the Dunns and Marie Carbo includes five stimuli groups which encompass the areas of environmental, emotional, sociological, physiological, and psychological. The groups contain twenty-one subcategories which are referred to as elements. A complete understanding of the model must be achieved before incorporating it into the classroom. Therefore, a thorough treatment of the elements of the model follows.

The environmental elements include sound, light, temperature and design. All students are either stimulated or inhibited by the location or environment in which they are trying to learn. Some students need complete silence, others are able to completely block out sounds, and others need sound in order to concentrate. Students are comfortable and concentrate better in different levels of light and temperature. Some students prefer a formal environment with a traditional desk and chair, while others would rather study in an informal design such as a lounge chair, couch, or carpeted floor. Students often will not pay close attention to reading when they are physically ill at ease, and will read their best when in the element they prefer. An individual's reaction to any of the environmental elements is directly related to their biological makeup, and usually remains consistent over time (Carbo, Dunn, & Dunn 1986).

The emotional elements include motivation, persistence, responsibility and the need for either structure or choice. The emotional elements differ from the environmental in that they are developmental--they emerge over time in relation to the experiences an individual encounters in life (Carbo, Dunn, & Dunn 1986). Therefore these elements are more capable of changing, and according to Carbo can improve positively as a result of learning styles-based instruction (Carbo, Dunn, & Dunn 1986). Increased motivation occurs in students when they are shown they can achieve. Usually students achieving well academically are shown to be highly persistent. Impersistent children seem to have a short attention span and need plenty of breaks (Carbo, Dunn, & Dunn 1986). Responsible students complete assignments effectively without much supervision, while less responsible students need increasingly more. The need for either structure or choice

varies in that some individuals like to know exactly what is expected of them before they begin an assignment, while others simply want to know the end-objective and prefer doing it their own way. Those preferring choice need opportunities for creativity and exploration. The sociological elements of learning style are self explanatory and simply involve the individual preferences about learning alone, with others, or in a variety of ways. Knowing with whom a student can work is extremely important when trying to teach students through their individual styles (Carbo, Dunn, & Dunn 1986).

The physical elements of learning style include perceptual strengths, intake, time of day or night energy levels, and mobility. These elements, like the environmental, are biological in nature, and will remain fairly constant over a period of time. Perceptual strengths can be categorized as visual, auditory, kinesthetic, and tactual. Auditory learners can easily remember what they hear. Visual learners remember what they see and can retrieve details and events by concentrating on things they have seen. Tactual learners remember more easily when they write, doodle, draw, or move their fingers. Kinesthetic learners learn most easily by doing and experiencing, and are youngsters whose perceptual strengths appear to mature more slowly than average (Carbo, Dunn, & Dunn 1986). Students should be introduced to new information through their strongest sense. After this, material should be reinforced through their second strongest sense (Carbo, Dunn, & Dunn 1986).

Many learners have a need for intake while they are studying or concentrating. Studies have shown that the need for intake parallels the growth curve. Allowing students who need intake to eat healthy snacks while reading has resulted in increased reading achievement (Carbo, Dunn, & Dunn 1986). The next physical element involves time of day preferences. This is important because learning at the right time can improve reading achievement. Studies over a period of seven years reveal that "at any time of day, at least one fourth of the student population is experiencing an energy low" (Carbo, Dunn & Dunn 1986, p. 16). The final physical element involves the need for

mobility. Often a greater need for mobility occurs in students that are not interested in what they are reading and are finding it difficult to concentrate. Therefore, when students are learning through their preferred elements, mobility needs often decrease (Carbo, Dunn & Dunn 1986).

The last group of elements in the Dunn model, the psychological, are addressed in the research, but neither the LSI nor the RSI test for these elements. However, research shows that these elements correlate with other elements on the LSI and RSI (Dunn, Beaudry & Klavas 1989). The first element involves global versus analytic learners. According to Carbo, "Analytic people piece details together to form an understanding that is 'backwards' from the way globals learn. Globals require an overall comprehension first, and then they can attend to the details" (Carbo, Dunn & Dunn 1986, p. 18). Each group is as intelligent and as capable as the other, and each group learns equally well when taught through methods that complement their style (Carbo, Dunn & Dunn 1986). This element is especially interesting when related to whole language, which is a more global approach. A global approach to reading involves hearing a story in its entirety rather than reading individual words or sounds. Analytic methods focus on the practice of words out of context and isolated letters and sounds.

The next psychological element concerns hemispheric preference. This includes right or left hemisphere-preferenced students. These individuals learn under very different conditions from each other. According to Carbo, they have "different environmental and organizational needs when concentrating as well as different motivational and personality characteristics" (Carbo, Dunn & Dunn 1986, p. 20). The final psychological element involves impulsiveness versus reflectivity. Some students will impulsively decide on answers before they think, while reflective students behave more contemplatively. Both qualities are valuable when used at the appropriate times, and often these types of students complement each other in the classroom.

Whole Language

The "whole language" approach to reading and writing instruction is based on the premise that "children best learn to read and write in the same way they learned to speak--from whole to part" (Robinson 1991, p. 1). Language is learned and refined gradually as a whole process using various language skills including reading, writing, and oral language skills. The instructional focus is on language meaning rather than skills (Robinson 1991).

Whole language involves a certain perspective on language and learning that leads to the acceptance of certain methods, strategies, materials, and techniques. According to Reutzel and Hollingsworth, "children are the focus in whole language classrooms" (Robinson 1991, p. 5). Students are encouraged to actively participate in the learning process by focusing their reading and writing on subjects that interest them. Many whole language advocates consider the classroom environment to be an integral part of their teaching approach, striving to make the instructional environment informal, relaxed and supportive (Robinson 1991). Teachers often provide a wide variety of reading materials, including those from everyday life to help students transfer familiar words and phrases to unfamiliar settings. Students' work is often displayed so that students will feel some ownership in the classroom. Several specific instructional strategies used in whole language classrooms will be explained briefly.

One philosophy underlying whole language is that children must be encouraged to take risks in order to achieve their potential as learners. Teachers encourage students to begin writing immediately even if they do not know the correct spelling of the words they write, and teachers accept these invented spellings without criticism. Another theory is that activities in the classroom should be socially-oriented and interactive, and an instructional strategy that follows from this is collaborative reading and writing (Robinson 1991). One particular reading strategy is the "shared book experience," which is conducted with a whole group in a large area. The teacher leads a reading session using materials such as an enlarged poem, song, or an enlarged text that contains

familiar, predictable, or repetitive phrases. Students can join in reading the story aloud or predicting the story's outcome, and the teacher uses this as an opportunity to observe their students' grasp of particular skills and concepts (Robinson 1991). The Impress Method is a strategy designed to aid students' reading fluency through their modeling of fluent reading (Robinson 1991). This technique involves students and teachers reading aloud in unison, and the focus is not on specific skills. Mini-lessons are taught when the teacher notices that one or more students need work on a particular skill--and teaches only those skills that are needed at the time. Most frequently whole group instruction and independent reading and writing are used. However, when grouping methods are used, cross-ability grouping or heterogeneous grouping is used rather than ability-grouping. The theory is that trying to fit students into pre-determined ability groups severely limits their potential (Robinson 1991). This strategy also allows teachers to avoid giving students the stigma of being in the "low" or "high" group. Another strategy is the use of literature extension activities which are built around a text the students have read. The activities reinforce reading as fun and often incorporate writing and art with reading.

Collaborative writing is also often done in a whole class setting. Together students develop a story that the teacher writes in print large enough for the entire class to see. Sometimes copies of the story are passed out, and used as part of another reading lesson or for teaching a mini-lesson on a particular skill (Robinson 1991). Journal writing is also used, especially the dialogue journal where teachers and students converse in written form day by day. Students are able to enjoy writing about topics that interest them without the pressure to perform language mechanics correctly. Teachers aid students during writing by answering questions and offering suggestions. Dictation is a strategy used in lower grades. Students dictate a chosen story and watch while the teacher writes down exactly what is said. This helps to teach concepts of words, word spacing sentences, paragraphs and to encourage the use of standard spellings (Robinson 1991). Another important strategy used by whole language teachers is to provide opportunities for sharing.

Presenting work is a crucial part of the writing process because it acknowledges students as authors (Robinson 1991). Finally, whole language teachers use the strategy of interrelating all subjects, which is often achieved in teaching thematic units.

Learning Styles and Whole Language

Although there are several differences in theory behind a whole language and a learning styles approach to instruction, there is literature that supports the successful merging of the two philosophies. According to Marie Carbo, "a knowledge of students' reading styles is needed for the best and most consistent progress in reading" (Carbo 1981, 40). Yet Carbo seems to support whole language philosophies when she states that analytic "procedures denigrate the value of reading--which is for understanding and pleasure! Reading skills are not reading; they are the intellectual components of the process that develops after a child understands how to read--and does" (Carbo, Dunn & Dunn 1986, p. 19). One reason why whole language may be such a successful approach in teaching young students to read is because Carbo has found that most young children they have tested are global (Carbo, Dunn, & Dunn 1986). Whole language is an inherently more "global" approach, therefore it is possible that its success is directly related to the fact that the methods and strategies used in whole language are matching a greater number of children's learning styles. Even further, a whole language approach is also inherently child-centered and flexible. Therefore, if a teacher is aware of the particular reading styles of his/her students, these can be accommodated for without disrupting the natural flow of a whole language classroom. Student's individual needs can be easily met by tailoring whole language strategies for individual students.

Carbo has misgivings about programs that do not address learning styles. She believes that "many reading programs--including whole language, still seriously mismatch the reading styles of some youngsters" (Carbo 1981, p. 40). Carbo presents several reasons individual learners may

not function well in whole language classrooms in the following paragraph:

For example strongly analytic/auditory students who need direct instruction in phonics, are not likely to progress in reading as they should in a whole language program that does not include sufficient phonics. Children who are not tactile (e.g. have poor hand-muscle coordination, are not likely to learn to read well if they spend a great deal of time writing stories. Children who need structure and quiet reading time, are not likely to learn to read well in classrooms with a great deal of activity and noise" (Carbo 1981, p. 40).

Carbo's claims may be true, and therefore whole language teachers need to figure out ways to combat this. Especially for poor readers which Carbo claims "invariably . . . are not taught in ways that match their reading styles" (Carbo, Dunn, & Dunn 1986, p. 7).

The wide array of strategies used in whole language can be combined and used to accommodate for individual styles. For example, whole language advocates emphasize that their approach does not exclude direct instruction in specific reading skills such as phonics (Robinson 1991). The whole language strategy of the mini-lesson--brief direct instruction in formal word skills--can be specifically used to provide instruction in phonics skills (Robinson 1991). If a teacher knows that a few of his/her students are highly auditory and analytic, he or she may use this as a cue and do a mini-lesson for these students in phonics. This may be the extra help needed to improve reading achievement in these particular students. Another supporting factor for using whole language can be drawn from Carbo's observations about global versus analytic reading styles. She claims that primarily global students absolutely must know the essence of the story and have high-interest reading material in order to maintain their attention (Carbo 1981). Therefore a global approach, such as whole language, is absolutely necessary for primarily global students. Since the use of high-interest materials appeals to both types, analytic students receive benefits from this approach also.

Both learning styles-based instruction and whole language are supported by research. Educators could benefit from learning how to combine the two approaches in the classroom. It is hypothesized that whole language strategies can be combined and used to accommodate for all

reading styles, including analytic styles, without compromising the philosophies behind either approach.

METHODOLOGY

Subjects

The study takes place at a rural Elementary school in Albemarle County, Virginia in two second/third combination grade whole language classrooms. Ten students that were, according to a recent reading inventory (L.R.I.), reading below grade level were chosen to participate, and a letter describing the research was sent to their parents (See Appendix D). The researcher administered the Reading Style Inventory (RSI) to each of these ten students, five girls in second grade, and five boys, one in second grade and four in third grade. The students were all between the ages of seven and nine years.

Instrument

The RSI is a screening instrument that includes fifty-two questions. Questions one through fourteen can be answered by marking A, B, or C. Questions fifteen through fifty-two are answered by marking "yes or "no." The first half of the test was administered in twenty minutes. The students were given a five minute break, and then the second half also took about twenty minutes.

The first page of the Individual Reading Style Profile gives a diagnosis of perceptual strengths/preferences, preferred reading environment, emotional profile, sociological preferences, and physical preferences, along with recommended strategies for each individual preference. (see Appendix A). The second page of the profile gives specific reading method recommendations that correlate with the individual preferences listed on the first page. The methods are listed in the following categories: "highly recommended", "recommended", "acceptable", and "not recommended." Sometimes underneath a recommended reading method, specific modifications are also listed, and there is sometimes a "special modifications" category listed in addition to the four

other main ones. Carbo refers to eight methods which are defined in the Learning Styles Manual. These include the Language Experience Method, the Individualized Method, the Carbo Recorded Book Method, the Phonic Method, the Linguistic Method, the Whole Word Method, the Orton-Gillingham Method, and the Fernald Word-Tracing Method. The first three methods play an important role in this study because they are so closely related to the strategies already used in whole language classrooms. The Fernald Word Tracing Method and the Orton-Gillingham Method both were not recommended for all ten students in the sample. Due to these results, only the first six of Carbo's reading methods will be treated in this study. In order to understand this study, it is necessary to have some basic knowledge about these six methods and whole language, as these terms will be used often. (Refer to Appendix A to see a sample RSI Individual Profile and Appendix B for brief definitions of the terms). The last page of the profile gives reading materials recommendations, including page number references to the manual, which give further information about specific types of materials and commercial materials available.

Procedure

The inventories were computer scored, and a three-page Individual Profile was obtained for each student. After studying the profiles, the researcher first determined to what extent the students' learning style needs were being met in their whole language classroom. Next, more specific ways in which these students' individual reading styles could be addressed in their whole language program were developed. The next task was to determine how all these students' reading styles needs can be met by this teacher without compromising philosophies behind whole language, disrupting the natural flow of the whole language classroom, or causing the teacher much extra time and work. The suggestions made should actually *save* teachers time in the long run. In analyzing the results of this particular sample, the methods will be explained in simple terms. Any educator might use the same type of process to tailor classrooms to meet the reading style needs of

their students.

The first step taken in analyzing the results was to examine the second page of each individual profile. This page includes the recommended reading methods for each individual student. The profiles were examined as a group by compiling a chart. (see Appendix C). A working version of a similar chart can be completed by any teacher in about five minutes.

RESULTS

One interesting aspect of the data, for this particular sample, was that the three methods that were the closest in philosophy and strategy to whole language were the most frequently recommended over all other methods. Both the Language Experience and Individualized methods fell within the "highly recommended", "recommended", and "acceptable" categories for every student. The Individualized Method was highly recommended for seven out of ten students and fell into the "accepted" category for the remaining three students. The Language Experience Method was highly recommended for five out of ten students, recommended for two students, and acceptable for three students. The Carbo Recorded Book Method was highly recommended for seven students and was recommended for the remaining three students. From this, it can be gathered that the whole language approach in itself is appropriate for every student in this sample. However, there is room for improvement in the program in order to tailor methods to the students' styles.

A proposal for changes made in this classroom can be mostly aimed at directing instructional strategies or "recommended reading methods" at those students who will benefit from them the most. The Individualized Method, which requires good to excellent visual perception skills, is already being used in this classroom. (Remember to refer to Appendix B for definition of terms and Appendix C for Reading Method Recommendations chart.) The results of the RSI profiles suggest that this method should continue. All students will continue to select reading from a variety of materials, and have individual conferences with their teacher. This is one of the overall strategies of whole language, and it is important that all students in this sample responded at least "acceptably" to this approach.

Another strategy that is incorporated into whole language classrooms is the Language Experience Method. This method requires good visual perception skills and moderate tactual skills,

and is very close in theory to the whole language "Dictation" strategy and collaborative reading strategies previously described. This teacher should especially use these strategies with students A,B,C,D, and G for which it was highly recommended. This strategy should definitely be used with student G, as it was the only one that was highly recommended for this particular student. The teacher could group these students together and do this activity while other students in the classroom are involved in whole language activities that better match their styles, such as independent reading, etc.

The Carbo Recorded Book Method (see Appendix B) was the most highly recommended of all methods. This method slightly resembles the Impress Method described earlier, and is similar in philosophy to the Individualized Method. Carbo gives very direct simple instructions about how to make recorded books in Teaching Students to Read through their Individual Learning Styles. This method is especially recommended for students in elementary grades reading below their grade level, which is true for all students in the sample. This teacher should definitely consider implementing this type of approach into this classroom. This global approach, unlike the individualized approach, does not require good visual perception skills, but still enables students to learn words within high-interest contexts (Carbo 1981). Students E, F, and G would probably benefit most from this method because there were few other methods recommended for their particular reading styles.

There were five students, A, B, E, F, and H, for which the Phonic and Linguistic Methods were recommended. Both methods require good to excellent auditory perception skills, although other characteristics are needed for success. These students could be grouped together and taught mini-lessons in phonics as needed. Due to their strong auditory abilities, and more analytic preferences, they would probably enjoy, and benefit most from this type of instruction. This grouping would still be in line with the whole language philosophy about heterogeneous grouping. It would save the teacher time determining groups, and the groups would be most likely to stay

together and respond well to this type of instruction. Students E and F should definitely have sufficient instruction as the only other recommended strategy was the Carbo Recorded Book method. Students G and J should not have this type of instruction as it is not recommended for them.

Finally the Whole Word Method was recommended for six of the students (see Appendix B). It requires good to excellent visual perception skills along with other characteristics in order to be successful. This method involves a much more structured approach than is typically used in a whole language classroom. It is interesting that the Individualized Method, which also requires good to excellent visual perception skills was recommended more highly than the Whole Word method, except in one case where they were both only rated "acceptable" for the particular student. Additional reading style characteristics needed for success in the Whole Word Method include preference for a quiet, formal, highly organized environment, and the students are usually adult motivated, fairly persistent and responsible, and prefer few or no choices. Since the opposite preferences were shown in a majority of the profiles, several specific modifications were listed whenever the Whole Word Method was recommended for a particular student. It follows from this that the teacher does not necessarily need to incorporate the Whole Word Method into the program because these students' learning style needs are being matched more effectively by the individualized approach.

The recommended reading methods were determined for the most part by perceptual preferences/strengths, yet other preferred elements, especially the emotional elements, were taken into consideration. In almost every case, each time a reading method was recommended, there were special modifications listed underneath that were exclusive to that particular student. All of the recommended reading methods for this particular sample of students can easily be incorporated into whole language. The results of the profiles can help the teacher to determine effective ways to group students so that specific strategies will be aimed at the students who will respond to them the

most effectively.

The teacher can do a simple analysis of the environmental elements to create a positive reading environment for every student. Four students preferred music, so the teacher should provide these students with headsets and soft music during reading time. Most students preferred a quiet environment without talking, while this was not a factor for the others. Quiet work areas should be provided for students. Tape recorded reading material with headsets to block out noise could also be made available.

Only one student preferred to read in a brightly lit environment, half preferred to read in a dimly lit environment, and it was not a factor for the others. The teacher should allow the student who prefers a bright environment to read by the window. Others can read in areas where the light is more diffuse due to dividers, curtains, hanging plants, etc. Lamps can be used to help in gauging light to student preferences.

Students had different preferences for temperature. The teacher should encourage students to wear appropriate clothing and permit students to read in areas of the room where they feel most comfortable. The teacher may create small cozy areas with rugs and pillows for an added feeling of warmth. These areas are also beneficial to those students who prefer an informal design. Half of the students in this sample preferred informal reading areas, two preferred both, while the others preferred a formal environment. Those who prefer a formal design should be provided with a desk or table and a chair.

Eight of the students in this sample preferred a highly organized environment. This teacher may want to color-code, number, coordinate, and/or label reading materials and equipment for these students. Materials should be stored neatly on shelves with instructions posted, and students should be taught how to choose and put them away correctly. The teacher should be aware of the two students who prefer a less organized environment, and attempt to respect their preferences also.

When analyzing the results of the emotional elements, it is clear that these can be accommodated for in this whole language classroom also. One student indicated that s/he was motivated by peers, four students indicated that they were motivated by adults, and nine students indicated that they were self-motivated. It is encouraging that so many students indicated self-motivation, because these students usually succeed with individualized and language experience approaches. These students should be allowed to establish objectives and self-evaluate. Peer-motivated students should be encouraged to work with their peers. The teacher may want to post lists of students' favorite and recommended reading materials, and provide small-group reading games and activity cards. Adult-motivated students should meet frequently with the teacher to discuss reading. The teacher should check and praise work frequently and encourage the student to work with adult volunteers. Students who are not self-motivated should be helped to establish specific, attainable goals based on the student's ability and reading level. The teacher should give brief, high-interest assignments, check and praise reading work often, and have the student keep track of progress.

All students in the sample indicated that they were highly persistent. Nine students indicated that they were highly responsible and one indicated fairly responsible. The teacher may provide long-term assignments and make available a large variety of resources. Individualized and Language Experience methods work well with highly persistent and highly responsible students. For the fairly responsible student, the teacher may want to begin with short-term assignments with fewer options, set time limits, and check and praise work frequently.

Seven students indicated that they preferred to have many choices, while the others indicated that they prefer some choices. The teacher should provide a large variety of reading resources based on the child's interests. Objectives should be established and students should be permitted to select resources. The teacher may want to provide a smaller selection for those who prefer some choices. Five students indicated that they preferred little or no direction. The teacher may establish objectives, procedures and time limits with the student, and as success is achieved, permit students

to establish their own objectives. The teacher might use reading contracts with these students and provide guidance when necessary. Three students prefer some direction and two prefer much direction. For these students, clear, simple objectives with fewer options should be provided. Directions should be stated clearly, possibly in writing for quick reference by the student, and time limits should be firmly set. Student progress should be monitored carefully, so that assignments can be gradually lengthened and options increased.

Students also had very different preferences about how often they preferred their reading work checked and by whom. Teachers should be receptive to these differences, especially in the beginning. For those students who prefer to have their work checked immediately, the teacher should do so upon completion, praise the student frequently, and slowly increase the length of time between the completion of the task and when it is checked. For those students who prefer adults to check their work, the teacher should check the work at regular intervals, and as confidence builds, encourage the student to begin self-checking some work.

The students in this sample had various sociological preferences. Eight out of ten students indicated for each category that they prefer reading to a teacher, alone, with their teacher and their peers, and/or with one peer. These eight students, however, varied between the categories. Only two students indicated that they prefer to read with just their peers. This teacher should provide opportunities for students to work with those they prefer, and should not schedule students to read outside their sociological preferences. A whole language classroom is flexible enough to provide for this.

Because three students indicated that they prefer to eat while reading, the teacher could allow the students to bring in healthy snacks. The teacher may want to set limits about times when the student may eat the snack or what can be brought in to the classroom. The students also have various time of day preferences for reading. The teacher may want to schedule students to read during their preferences. For those students who prefer to read outside school hours, the teacher

might provide reading assignments that may be completed at home or make available tape-recorded reading lessons for the child to listen to during his/her best working time. Finally, seven students indicated that they preferred little to no mobility. One student preferred some mobility and two preferred much mobility. Those who need mobility should be provided with brief reading periods and be permitted to get a drink or snack as needed and then return to work immediately. Carbo claims that mobility needs will decrease in students whose reading styles are being matched in the classroom (Carbo, Dunn, & Dunn 1986). In keeping with this claim, it is interesting to note that the two students, F and G, that indicated they prefer much mobility, are also two of the students for which the Individualized method was ranked only "acceptable."

CONCLUSIONS

This study supported the hypothesis that individual student reading styles could be accommodated within a whole language classroom. The results of the individual profiles showed that a majority of students respond well to global approaches to teaching reading. The reading styles of the students were shown to be well within a whole language teacher's ability to use whole language strategies and techniques to accommodate for them. Through a knowledge of student reading styles, the teacher is able to create a physical and academic environment that will best meet the needs of the students. The teacher will have strong guidelines for grouping students and planning lessons in ways that will have a strong likelihood for being the most effective for each individual student.

I would recommend that every teacher begin the school year by using an appropriate method for determining the learning or reading styles of the students in the class. One disadvantage of utilizing an instrument such as the RSI is the cost involved in paying for the test, manual, and scoring. Ideally it should be given to all students, however, if this becomes a problem, teachers could begin by determining the learning styles of students who need help the most.

Research indicates that accomodating for individual student learning styles will improve achievement. Research also supports the whole language theory in teaching students to read. Figuring out how to incorporate these two well supported theories in the classroom could solve many problems for educators. This study simply provides some insight into how to accomplish this task.

DATE OF PROFILE-03/27/92
STUDENT NAME-
GRADE-3 RL-1
DOB-08/16/82

Appendix A

INDIVIDUAL READING STYLE PROFILE

DIAGNOSIS	RECOMMENDED STRATEGIES FOR TEACHING READING	RSI MANUAL
PERCEPTUAL STRENGTHS/PREFERENCES		
EXCELLENT AUDITORY STRENGTHS	USE LISTENING ACTIVITIES; USE DECODING AS NEEDED	P.21#27A
EXCELLENT VISUAL STRENGTHS	USE VISUAL AIDS (WORD CARDS, BOARD WORK)	P.22#28A
MODERATE TACTUAL PREFERENCES	USE TACTUAL ACTIVITIES (WRITING, TYPING)	P.22#29B
MODERATE KINESTH PREFERENCES	COMBINE READING W/BUILDING/DOING/FLOOR GAMES	P.23#30B
PREFERRED READING ENVIRONMENT		
QUIET (NO MUSIC)	PROVIDE QUIET AREAS, STUDY CARRELS, HEADSETS	P.15#1A
QUIET (NO TALKING)	PROVIDE QUIET AREAS, STUDY CARRELS, HEADSETS	P.15#2A
DIMLY LIT	PROVIDE SHADED LAMPS, DIFFUSED LIGHT	P.15#3B
COOL TEMPERATURES	ALLOW STUDENT READ COOLEST AREA OF ROOM	P.15#4A
FORMAL & INFORMAL DESIGN	HAVE HARD CHAIRS & SOFT CHAIRS AVAILABLE	P.16#5C
HIGHLY ORGANIZED	PROVIDE COLOR-CODED, NUMBERED READING MATERIAL	P.16#6A
EMOTIONAL PROFILE		
THIS STUDENT IS:		
NOT PEER-MOTIVATED	DON'T REQUIRE SHARE READING INTERESTS W/PEERS	
ADULT-MOTIVATED	ENCOURAGE SHARE READING INTERESTS W/TEACHERS	P.16#8
SELF-MOTIVATED	PROVIDE MANY OPPORTUNITIES TO READ	P.16#9
HIGHLY PERSISTENT	PROVIDE LONG-TERM ASSIGNMENTS & CONTRACTS	P.17#10A
HIGHLY RESPONSIBLE	PROVIDE SOME SELF-SELECTION OF OBJECTIVES	P.17#11A
THIS STUDENT PREFERS:		
SOME CHOICES	PROVIDE SOME CHOICE HIGH-INTEREST MATERIALS	P.18#12B
SOME DIRECTION	GRADUALLY INCREASE OPTIONS	P.18#13B
WORK CHECKED OFTEN	RETURN CHECKED WORK SOON AFTER COMPLETED	P.19#14B
WORK CHECKED BY ADULTS	CHECK WORK REGULARLY; GIVE PRAISE/GUIDANCE	P.19#15B
SOCIOLOGICAL PREFERENCES		
TO READ TO A TEACHER	SCHEDULE STUDENT TO READ TO A TEACHER	P.19#16
NOT TO READ W/PEERS	DON'T SCHEDULE STUDENT READ W/PEERS OFTEN	
TO READ ALONE	SCHEDULE STUDENT TO READ ALONE	P.20#18
TO READ W/PEERS/TEACHER	SCHEDULE STUDENT TO READ W/PEERS/TEACHER	P.20#19
TO READ W/ONE PEER	SCHEDULE STUDENT TO READ W/ONE PEER	P.20#20
PHYSICAL PREFERENCES		
INTAKE WHILE READING	PERMIT STUDENT TO EAT/DRINK WHILE READING	P.20#21A
TO READ IN THE MORNING	SCHEDULE READING WORK IN THE MORNING	P.20#22
TO READ EARLY NOON	SCHEDULE READING WORK IN EARLY NOON	P.20#23
TO READ LATE NOON	SCHEDULE READING WORK IN LATE NOON	P.20#24
NOT TO READ IN EVENING	DON'T ASSIGN READING TO BE DONE IN EVENING	
LITTLE/NO MOBILITY	PERMIT STUDENT TO READ FOR LONG PERIODS	P.21#26C

READING METHOD RECOMMENDATIONS

DATE OF PROFILE-03/27/92
STUDENT NAME-

GRADE-3 RL-1 RM-IN LE
DOB-08/16/82

HIGHLY RECOMMENDED

THE INDIVIDUALIZED METHOD IS HIGHLY RECOMMENDED WITH THE FOLLOWING MODIFICATIONS:

- PERMIT SHARE READING INTRUSTS WITH TEACHER -TEACHER SHOULD CHECK STUDENT'S WORK
- SCHEDULE STUDENT TO READ WITH TEACHER -SCHEDULE TO READ WITH TEACHER & PEERS

THE CARBO RECORDED-BOOK METHOD (PP.54-5 RSI MANUAL), IS HIGHLY RECOMMENDED IF STUDENT IS IN ELEMENTARY GRADE AND/OR READING BELOW GRADE LEVEL. MAKE THESE MODIFICATIONS:

- SCHEDULE STUDENT TO READ TO TEACHER -SCHEDULE STUDENT TO READ WITH ONE PEER

RECOMMENDED

THE PHONIC METHOD AND THE LINGUISTIC METHOD ARE RECOMMENDED WITH THE FOLLOWING MODIFICATIONS:

- PROVIDE LONG-TERM ASSIGNMENTS -PROVIDE CHOICES OF READING MATERIALS
- PROVIDE SOME OPTIONS/INDEPENDENT WORK -CHECK WORK AFTER ONE/TWO DAYS
- SCHEDULE STUDENT TO READ ALONE -SCHEDULE TO READ WITH ONE PEER

THE WHOLE-WORD METHOD IS RECOMMENDED. USE MODIFICATIONS UNDER PHONIC METHOD.

THE LANGUAGE-EXPERIENCE METHOD IS RECOMMENDED WITH THE FOLLOWING MODIFICATIONS:

- PROVIDE QUIET WRITING/READING AREA -PERMIT SHARE WRITING INTRUSTS WITH TEACHER
- SCHEDULE STUDENT TO READ WITH TEACHER -DON'T SCHEDULE TO READ WITH PEERS OFTEN
- SCHEDULE TO READ WITH PEERS & TEACHER

ACCEPTABLE

NONE LISTED

SPECIAL MODIFICATIONS

FOR ALL READING METHODS LISTED ABOVE, THE FOLLOWING SPECIAL MODIFICATIONS ARE RECOMMENDED FOR THIS STUDENT:

NOT RECOMMENDED

THE FERNALD METHOD IS NOT RECOMMENDED FOR THIS STUDENT.

THE ORTON-GILLINGHAM METHOD IS NOT RECOMMENDED FOR THIS STUDENT.

Learning Styles and Whole Language 26

DATE OF PROFILE-03/27/92
STONT NAME-

GRADE-3 RL-1 RM-IN LE
DOB-08/16/82

HIGHLY RECOMMENDED

INDIVIDUALIZED MATERIALS,EG.SCHOLASTIC BOOKS,RANDOM HOUSE(P.49 RSI MANUAL).

AUDIO-VISUALS,EG.FILMSTRIPS,FILM LOOPS,ELECTRONIC TCHG MACHINES(P.53 RSI MANUAL).

TCHR-MADE RECORDED BOOKS(PP.54-5 RSI MANUAL),IF STONT IS IN ELEMENTARY GRADE AND/OR IS READG BELOW GRADE LEVEL.

COMPUTERS WITH A VARIETY OF READG SOFTWARE.

RECOMMENDED

BASAL RDRS W/PHONIC OR LINGSTC EMPHASIS,EG.OPEN COURT,LIPFINCOTT(PP46-7 RSI MANUAL).

BASAL RDRS USING WHOLE-WORD METHD,EG.SCOTT FORESMAN,MACMILLAN,HOLT(P.45 RSI MANUAL).

LANG-EXPERIENCE MATERIALS,EG.ENCYC BRITANNICA LEIR KIT(P.48 RSI MANUAL)AND/OR ACTIVITY CARDS(P.50 RSI MANUAL).ALSO SEE P.56 FOR TCHR-MADE ACTIVITY CARDS.

GAMES,EG.DLM,CURRIC ASSOC(P.50 RSI MANUAL;ALSO SEE PP.57-61 FOR TCHR-MADE GAMES AND MULTISENSORY INSTRUC PKGS).

READING KITS,EG.SRA READG LAB,AUDIO READG PROGRESS LAB(P.51 RSI MANUAL;ALSO SEE P.60 FOR TCHR-MADE PROGRAMED LNG SEQUENCE).

SKILL BUILDER WKBKS & DUPL MASTERS,EG.MEDIA MATERIALS,WORLD RECORD PUBL, MILLIKEN(P.52 RSI MANUAL).

GLASS-ANALYSIS MATERIALS(P.51 RSI MANUAL).

ACCEPTABLE

NONE LISTED

NOT RECOMMENDED

NONE LISTED

Appendix B

Definitions of six of Marie Carbo's Recommended Reading Methods

(from the Reading Style Inventory Manual, by Marie Carbo, Ed.D., pp. 41-43.)

1. Individualized Method

Students are permitted to read a great variety of printed materials on many reading levels. They can select reading materials based on their own individual interests. Emphasis is placed on silent reading skills, comprehension and reading for enjoyment. Students are encouraged often to share their reading interest with their classmates. The teacher acts as a resource person by providing a stimulating environment, checking the student's word-meaning and comprehension skills during individual conferences, and recommending further readings.

2. Language Experience Method

Initially, students dictate stories to their teacher who writes them on large charts. Later, students learn to read what they individually write. Words are controlled by the child's speaking vocabulary and interests. Children work individually and in small groups. The teacher provides needed words, writing ideas and encouragement.

3. Carbo Recorded Book Method

This is a structured technique that is similar to the individualized method. First, high-interest books are recorded in small, sequential segments. Second, as students listen to the recording, they follow with their finger under the words as they hear them. This procedure is repeated (usually two or three times), until the student can read aloud fluently. Beginning readers and students with only poor-to-fair visual perception skills, have made excellent progress, because this global reading method enables students to learn words within high-interest contexts.

4. Phonic Method

Students learn isolated letter-sounds and then blend these to form words. Youngsters progress to longer and more-difficult words and are encouraged and/or expected to decode words independently. The phonic method requires that the student associate printed letters with their corresponding sounds, blend letter sounds quickly to form words, understand the rules of phonics, and apply learned phonics rules to new words. Whole-class and small-group instruction are used often, and each student is expected to keep pace with the group. The teacher's role is to question, inform, and correct the youngsters.

5. Linguistic Method

The linguistic method differs from phonics in that isolated letters are not taught. Instead, word patterns or "families" are stressed (e.g., fat, cat, sat, mat). Word patterns are taught in a specific sequence, and students are encouraged to decode words using their knowledge and understanding of word patterns. Students must be able to discriminate visually among similar words.

6. Whole-Word Method

The whole-word method usually is used in conjunction with a basal reader. Before students read a

story, the teacher introduces unfamiliar words that will be encountered in the story. These words are presented visually on flash cards, word lists, in the context of sentences, etc. Words may be different in both sound and shape, and are presented in basal readers in a specific hierarchical sequence. If a student does not know a word, he/she is encouraged to use the sentence context to decipher it. Whole-class and small-group instruction are employed, and students are expected to keep pace with the group. The teacher's role is to impart information, question, and correct the youngsters.

Appendix C

Group Chart of Recommended Reading Methods

STUDENTS	HIGHLY REC.	RECOMMENDED	ACCEPTABLE	NOT REC.
A	LE, IN, CA	PH, LI, WW		FE, OG
B	LE, IN, CA	PH, LI, WW		FE, OG
C	LE, IN, CA	WW	PH, LI	FE, OG
D	LE, IN, CA	WW	PH, LI	FE, OG
E		PH, LI, CA	LE, IN	WW, FE, OG
F		PH, LI, CA	WW, LE, IN	FE, OG
G	LE	CA	IN	PH, LI, WW, FE, OG
H	IN, CA	PH, LI, WW, LE		FE, OG
I	IN, CA	WW, LE	PH, LI	FE, OG
J	IN, CA		WW, LE	PH, LI, FE, OG

KEY:

- IN = INDIVIDUALIZED METHOD
 LE = LANGUAGE EXPERIENCE METHOD
 CA = CARBO RECORDED BOOK METHOD
 WW = WHOLE WORD METHOD
 PH = PHONIC METHOD
 LI = LINGUISTIC METHOD
 FE = FERNALD WORD TRACING METHOD
 OG = ORTON-GILLINGHAM METHOD

Appendix D

March 2, 1992

To PARENTS AND GUARDIANS:

During the Fall, I was Susan Walker's teaching associate from the University of Virginia. Currently, I am working on a research project studying individual student reading styles (ways students prefer to learn and be taught to read). I would like to administer a short test called the Reading Styles Inventory to your child. This test will simply help your child identify the different ways your child prefers learning to read in school. The results will help me considerably with my research. If you have any questions regarding this research or your child's involvement please contact your child's teacher or myself (977-6465).

Thank-you for your cooperation,

Anne Catoe

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